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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,561	11/20/2001	Mitsuru Endo	MAT-8201US	1678

7590 09/29/2005

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EXAMINER

VO, HUYEN X

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/989,561	Applicant(s) ENDO ET AL.	
	Examiner Huyen X. Vo	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13,15,17,19,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-13,15, 17, 19, and 21-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant has submitted an amendment, filed 8/5/2005, amending the base claims, while arguing to traverse prior art rejection based on amended limitations (see *claim amendment*). Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection necessitated by claim amendment in view of Pfister et al. (WO 96/03741, applicant's admitted prior art).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5, 9, 13, 15, 17, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfister et al. (WO 96/03741, applicant's admitted prior art).

4. Regarding claims 1, 5, 13, and 17, Pfister et al. disclose a method, apparatus, storage medium, and computer program product for converting inputted speech to text, comprising: an input section for inputting an utterance, said utterance comprised of a plurality of word-strings which each include one or more words (*diction mode on page 9*); an utterance pre-processing section for extracting a feature amount of the utterance of from said input section (*phonetic feature detection on page 10*); a word candidate

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preparing section for preparing a following word candidate from a fixed word-string (*phoneme identification section on pages 15-19*); a word-string preparing section for preparing word-string candidates based on one to several words from the extracted feature amount of one of the plurality of word-strings of the utterance and from the word candidate (*phoneme identification section on pages 15-19*); a display section for displaying the word-string candidates (*page 20, line 1-36*); an operating section for a user to select one of the word-string candidates being displayed, the selected word-string candidate forming the fixed word-string (*Display and Editing Mode and Phonetic Symbol String Editing sections on pages 20-22*); and a candidate-preparation instructing section for instructing said word candidate preparing section to prepare a following word candidate from the fixed word-string selected by said operating section (*phoneme identification section on pages 15-19*), wherein said word-string preparing section repeats preparation of said word-string candidates for each successive word-string in said utterance using said following word candidate until the end of the utterance is reached (*Subsequent Word Resolution on page 27*).

5. Regarding claim 21, Pfister et al. further disclose the method for converting inputted speech to text according to claim 1, wherein said candidate determining step (b) determines said candidates of word-strings on the basis of a language information and an acoustic information of the selected word-strings when there are pre-selected word strings (*language models and acoustic models are inherently included in any particular speech recognition system*).

6. Regarding claims 15 and 19, Pfister et al. further disclose that the candidate preparing step (b) further having a process to update the candidate due to an acoustic score (*adaptive feedback section on pages 26-27*).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pfister et al. (WO 96/03741, applicant's admitted prior art) in view of Official Notice.

9. Regarding claim 9, Pfister et al. fail to specifically disclose that the apparatus is included in a cellular telephone. However, examiner takes official notice that cellular telephone having speech recognition capability is well known in the art. It would have been obvious to one of ordinary skill in the art to incorporate speech recognition capability in the cellular telephone in order to enable users to dial telephone numbers by voice without having their eyes off the road while driving.

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10. Claims 3, 6-7, 10-11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfister et al. (WO 96/03741, applicant's admitted prior art) in view of Abe et al. (US 6173253).

11. Regarding claims 6 and 22, Pfister et al. further disclose speech recognition of longer speech blocks such as phrases and sentences, but fail to specifically disclose that at least one of said candidates of word-strings is a phrase built by an extension process to repeat word linking according to a word-based linkage probability on said candidate determining step (b). However, Abe et al. teach that at least one of said candidates of word-strings is a phrase built by an extension process to repeat word linking according to a word-based linkage probability on said candidate determining step (b) (*col. 7, lines 21-40*).

Since Pfister et al. and Abe et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Pfister et al. by incorporating the teaching of Abe et al. in order to determine the most probable sentence/phrase as a recognition result.

12. Regarding claims 3 and 7, Pfister et al. further disclose that the candidate preparing step (b) further having a process to update the candidate due to an acoustic score (*adaptive feedback section on pages 26-27*).

13. Regarding claims 10-11, Pfister et al. fail to specifically disclose that the apparatus is included in a cellular telephone. However, examiner takes official notice

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that cellular telephone having speech recognition capability is well known in the art. It would have been obvious to one of ordinary skill in the art to incorporate speech recognition capability in the cellular telephone in order to enable users to dial telephone numbers by voice without having their eyes off the road while driving.

14. Claims 4, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfister et al. (WO 96/03741, applicant's admitted prior art) in view of Abe et al. (US 6173253), as applied to claims 3 and 7, respectively, and further in view of Huang et al. (US 5829000).

15. Regarding claims 4 and 8, the modified Pfister et al. fail disclose that the extension process is ended by reaching of the number of phrase candidates subjected to said extension process by a predetermined number as counted from a top rank in a language score. However, Huang et al. teach a re-sizeable correction that enables the user to set a limit on the number of candidate words/phrases to be displayed on the display for the user to select (*referring to col. 7-8*).

Since the modified Pfister et al. and Huang et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Pfister et al. by incorporating the teaching of Huang et al. in order to provide rapid correction of misrecognized words/phrases.

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16. Regarding claim 12, Pfister et al. fail to specifically disclose that the apparatus is included in a cellular telephone. However, examiner takes official notice that cellular telephone having speech recognition capability is well known in the art. It would have been obvious to one of ordinary skill in the art to incorporate speech recognition capability in the cellular telephone in order to enable users to dial telephone numbers by voice without having their eyes off the road while driving.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HXV


W. R. YOUNG
PRIMARY EXAMINER
9/9/2005